

CLAIMS

1. A navigation system for use in a motor vehicle, comprising:
 - a data input unit through which a user enters start position data and destination position data, and provides received start position data and received destination position data;
 - a first memory unit that stores a basic navigation database including road map information;
 - a communication unit that receives supplemental navigation data including detailed information of digital road maps, and provides received supplemental navigation data; and
 - a second memory unit that receives and stores said received supplemental navigation data;
 - a navigation computer that receives said received start position data, said received destination position data, and computes driving directions between the starting position and the destination position using information from said basic navigation database and said received supplemental navigation data; and
 - a data output unit for outputting said driving directions to the user.
2. The navigation system of claim 1, wherein said communication unit includes a wireless receiver that receives said supplemental data.
3. The navigation system of claim 1, wherein said wireless receiver includes a GSM receiver.
4. The navigation system of claim 1, wherein said wireless receiver comprises means for receiving said supplemental navigation data via a Bluetooth compatible communication protocol.
5. The navigation system of claim 2, wherein said data output unit comprises a display for presenting said driving directions to the user.

- 1 6. The navigation system of claim 5, wherein said supplemental navigation data comprises
2 graphic data for presentation on said display.
- 1 7. The navigation system of claim 2, wherein said first memory unit comprises a compact disk.
- 1 8. The navigation system of claim 2, wherein said first memory unit comprises a digital video
2 disk.
- 1 9. The navigation system of claim 2, wherein said first memory unit comprises a hard disk.
- 10 10. The navigation system of claim 2, wherein said first memory unit comprises flash-random
access memory.
- 11 11. The navigation system of claim 2, wherein said first memory unit comprises a read-only
2 memory.
- 12 12. The navigation system of claim 2, wherein said second memory unit comprises a hard disk.
- 13 13. The navigation system of claim 2, wherein said second memory unit comprises a flash-
2 random access memory.
- 1 14. The navigation system of claim 2, wherein said second memory unit includes a dynamic
2 random access memory.
- 1 15. The navigation system of claim 2, wherein said navigation computer, said data input unit,
2 said data output unit, said first and second memory units, and said communication unit are arranged
3 in a ring communication network.

1 16. The navigation system of claim 2, further comprising a position locating unit.

1 17. The navigation system of claim 16, wherein said position locating unit comprises a GPS
2 receiver.

1 18. The navigation system of claim 17, wherein said received supplemental navigation data
2 comprises data for used by said navigation computer to provide routine search and destination
3 directions relating to a starting position, an intermediate destination, and a final destination specified
4 by the user.

1 19. The navigation system of claim 1, wherein said communication unit comprises a memory
2 configured to receive a data medium that includes said supplemental navigation data.

1 20. The navigation system of claim 19, wherein said data medium comprises a compact disk.

1 21. The navigation system of claim 20, wherein said data medium comprises a digital video
2 versatile disk.

1 22. The navigation of claim 19, wherein said data medium comprises an IC memory card.

1 23. A method for data management of a motor vehicle navigation system, comprising:
2 calculating driving routes in a navigation computer;
3 receiving a driving start position, and final destination position through a data input unit,
4 which is connected to the navigation computer;
5 transmitting to the user the driving routes calculated by the navigation computer;
6 storing in a first memory unit connected to the navigation computer basic database that

7 includes digital road map information, which is needed to calculate the driving route;
8 receiving data supplementary to the basic database, such as detailed information of digital
9 road maps, over a network connection to a communication unit that is connected to the navigation
10 computer; and
11 storing the received supplementary data in a second memory unit that is connected to the
12 navigation computer.

1 24. A navigation system for use in a motor vehicle that receives starting position data and
2 destination position data and computes driving directions between the starting and destination
3 positions, said navigation system comprising:

4 a first memory unit that stores a basic navigation database including road map information;
5 an RF receiver that receives supplemental navigation data including digital road maps, and
6 provides received supplemental navigation data; and

7 a second memory unit that receives and stores said received supplemental navigation data;
8 means for receiving said received start position data, said received destination position data,
9 and for computing driving directions between the starting position and the destination position using
10 information from said basic navigation database and said received supplemental navigation data; and
11 means for outputting said driving directions to the user.